

### REMARKS

An Information Disclosure Statement is submitted herewith.

In the Office Action dated July 6, 2005, claims 15 and 29 were rejected under 35 U.S.C. § 103 over U.S. Patent Application Publication No. 2002/0134552 (Moss); claims 1-3, 5, 6, 9, 10, 17, 18, 20-23, 25, 33, and 34 were rejected under § 103 over Moss; claims 4, 7, 19, and 26 were rejected under § 103 over Moss in view of U.S. Patent No. 6,209,634 (Avakov); claims 8 and 30-32 were rejected under § 103 over Moss in view of U.S. Patent No. 5,657,823 (Kogure); claim 27 was rejected under § 103 over Moss in view of Avakov and Kogure; claims 11 and 12 were rejected under § 103 over Moss in view of U.S. Patent No. 5,676,209 (Reynolds).

No rejection was asserted against claim 16—an indication of allowability of the claim is respectfully requested.

Applicant acknowledges the indication that claim 24 would be allowable if rewritten in independent form. Claim 24 has been amended from dependent form to independent form, with the scope of the claim remaining *unchanged*. Claim 24 is therefore in condition for allowance.

Independent claim 15 was rejected as being obvious over Moss alone. The Office Action conceded that Moss does not disclose an underwater marine unit that is able to receive wireless signals. 7/6/2005 Office Action at 2. However, the Office Action took Official Notice that such a feature was well known. In response to Applicant's request for documentary evidence to support the taking of this Official Notice, the Office Action cited Sonnenschein.

To establish a *prima facie* case of obviousness, the Office Action must provide evidence supporting a motivation or suggestion to modify the teachings of Moss to achieve the claimed invention. See M.P.E.P. § 2143 (8<sup>th</sup> ed., Rev. 2), at 2100-129. The Office Action has failed to provide evidence that provides the motivation or suggestion to modify Moss in the manner proposed by the Office Action.

Moss teaches the use of a "standard" remote operated vehicle (ROV). Moss, ¶ [0015]. Moss also refers to use of an umbilical for controlling an intervention system. Moss, ¶ [0017]. Thus, what Moss would have suggested to a person of ordinary skill in the art is the control of an ROV using an umbilical.

Sonnenschein is focused on underwater wireless communications using personal devices carried by a diver. Sonnenschein, 6:24-35. Although Sonnenschein mentions in passing that the

communications techniques for the personal devices can be modified for underwater ROVs and AUVs, there is no suggestion in Sonnenschein that such wireless communication with ROVs or AUVs can be used for the purpose of operatively coupling a carrier line to intervention equipment attached to subsea wellhead equipment, as recited in claim 15.

In fact, there existed no suggestion of any desirability to apply the underwater wireless communications technique discussed in Sonnenschein to the "standard" ROV described in Moss. It is well established law that "[t]he mere fact that the prior art could be so modified would not have made the modification **obvious** unless the prior art suggested the **desirability** of the modification." *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (emphasis added). As the Federal Circuit has stated, "virtually all [inventions] are combinations of old elements." *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453 (Fed. Cir. 1998). "Most, if not all, inventions are combinations and mostly of old elements." *Id.*

Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'

*Id.*

The only basis for modifying Moss using the teachings of Sonnenschein is impermissible hindsight based on the disclosure of the present invention. Using the present invention as a template to piece together un-related elements of prior art references to achieve the claimed invention is clearly prohibited. *See In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Therefore, a *prima facie* case of obviousness has not been established with respect to claim 15.

Independent claim 29 is also similarly allowable over Moss.

Independent claim 1 was rejected as being obvious over Moss alone. The Office Action conceded that Moss fails to disclose a stack separate from a carrier line spool. 7/6/2005 Office Action at 3. However, the Office Action stated that the subject matter of claim 1 would be obvious because "it has been held that constructing a formally [sic] integral structure in various elements, i.e. two stacked boxes instead of one frame, involves only routine skill in the art." *Id.*

The Office Action cited *Nerwin v. Erlichman*, 168 U.S.P.Q. 177, 179 (Board of Patent Appeals and Interferences, 1969), as supporting the obviousness rejection.

Applicant notes that *Nerwin* is inapposite. *Nerwin* was decided in the context of an interference in which the Board had to decide whether a count involved in the interference lacked support in the disclosure of the Erlichman patent application. *Nerwin*, 168 U.S.P.Q. at 178. The Board held that a single element disclosed in Erlichman can support two claim elements in the count, since the disclosure of the Erlichman patent application discloses several functions for the single element. *Id.* at 179.

The holding in *Nerwin* that a single element of the disclosure of a patent application can support two claim elements is completely un-related to the issue involved in the present application. The issue in the present case is not whether a single element of Moss discloses two separate elements of claim 1. Rather, the issue in the present case is whether Moss teaches or suggests a stack in a structure separate from a carrier line spool. Clearly, Moss does not teach or suggest such a carrier line spool and stack. Contrary to the assertion made in the Office Action, *Nerwin* does not support the proposed modification of Moss.

There is no evidence to support the assertion made in the Office Action that there existed a motivation or suggestion to modify Moss to achieve the claimed invention, in which a stack is in a structure separate from a carrier line spool. In fact, Moss would have led a person of ordinary skill in the art away from separating the carrier line spool from the rest of the stack, since Moss teaches that all of the elements of Fig. 2 (the intervention system) are “packaged in a three-dimensional space frame 29.” Moss, ¶ [0018]. “The intervention system is simply enclosed inside a space framed to provide structural support for the components as they are transported, deployed, retrieved, or repaired.” Moss, ¶ [0019]. In other words, Moss teaches the importance of integrating or packaging the offset reel 22 along with the rest of the intervention system, as depicted in Fig. 2 of Moss. A person looking to the teachings of Moss would have been taught to use a packaged frame to enclose all the elements of the intervention system. This teaching is inconsistent with the subject matter of claim 1, which recites a stack separate from the carrier line spool. In view of the foregoing, because no motivation or suggestion existed to modify the teachings of Moss to achieve the claimed invention, a *prima facie* case of obviousness has not been established with respect to claim 1.

Similarly, a *prima facie* case of obviousness has also not been established with respect to independent claim 17.

Claim 4, which depends from claim 1, was rejected as being obvious over Moss and Avakov. The Office Action conceded that Moss fails to disclose a carrier line spool placed on the sea floor separate from the stack. 7/6/2005 Office Action at 3. However, the Office Action relied upon Avakov as teaching this feature. Avakov does *not* teach the positioning of its drum/reel on a sea floor. In fact, Avakov teaches that the drum/reel is *positioned on a truck for mobile operations*. Avakov, 5:53-55. Placing the drum/reel of Avakov on a sea floor would directly contradict the teaching of Avakov that the drum/reel should be supported on a truck for mobile operations.

Moreover, Fig. 1 of Avakov is a schematic diagram not intended to be to scale. There is no teaching whatsoever that the drum/reel 20 of Avakov can be positioned underwater, let alone on the sea floor. The assertion made in the Office Action is not based on any specific teaching of Avakov. Therefore, it is respectfully submitted that even if Avakov can be combined with Moss, the hypothetical combination of Moss and Avakov does not teach or suggest all elements of the claim. Moreover, as Avakov teaches away from the invention, namely that the drum/reel must be supported on a truck for mobile operations, rather than on a sea floor, it is also respectfully submitted that no motivation or suggestion existed to combine the teachings of Moss and Avakov to achieve the claimed invention. For the foregoing reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to Moss and Avakov.

Similarly, with respect to claim 26 (which depends from claim 17), a *prima facie* case of obviousness has not been established over Moss and Avakov, as the asserted combination of references does not teach or suggest lowering, using an underwater marine unit, the carrier line spool to a position on a *sea floor*.

Independent claim 30 was rejected as being obvious over Moss and Kogure. The Office Action conceded that Moss fails to disclose attaching one or more buoyancy tanks to at least one of the modules containing intervention equipment. 7/6/2005 Office Action at 3. However, reliance was made on Kogure as teaching the missing feature.

As stated in Moss, a goal of its proposed invention is the elimination of a riser to the surface. Moss, ¶¶ [0012]-[0013]. Kogure is directed to a riser that includes a riser stabilizing system and supplementary buoyancy tanks fixedly positioned to the upper end of the riser 16. Kogure, 3:14-18; 3:25-26, 4:31-33. Thus, while Moss teaches the elimination of a riser, Kogure teaches the exact opposite -- a specific type of riser with equipment to support ease of use of the riser. Combining the teachings of Moss and Kogure would defeat the goals and objective of both references. A basic requirement of establishing a *prima facie* case of obviousness is that a proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. *Id.*, § 2145, at 2100-156. Therefore, there can be no motivation or suggestion to combine the teachings of Kogure and Moss.

The Office Action stated that the teachings of Kogure regarding a riser and riser stabilization system, and the teachings of Moss directed to elimination of a riser from an underwater installation, does not prevent the combination of Moss and Kogure since the Office Action is not using the primary function of the Kogure in combination with Moss. 7/6/2005 Office Action at 6. Ignoring significant parts of the teachings of Kogure and Moss to provide the obviousness rejection based on Moss and Kogure is error. As stated by the M.P.E.P., a prior art reference “must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” M.P.E.P. § 2141.03, at 2100-127. Therefore, it is respectfully submitted that due to the nature of the teachings of Moss and Kogure, a person of ordinary skill in the art would not have been motivated to combine their teachings. A *prima facie* case of obviousness of claim 30 over Kogure and Moss has therefore not been established.

All dependent claims, including newly added dependent claim 35, are allowable for at least the same reasons as corresponding independent claims.


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In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (SHL.0099C1US).

Respectfully submitted,

Date: \_\_\_\_\_

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